

What is claimed is:

1. A communication network control apparatus disposed on an MPLS network connected with a plurality of base stations, comprising:

5 a forwarding table that associates an MPLS label with a plurality of pieces of forward information for forwarding a packet assigned the MPLS label to store; a receiver that receives the packet assigned the MPLS label;

10 a table checker that determines a forward destination corresponding to the MPLS label of the packet using the forwarding table; and

15 a packet copier that forwards the received packet to the forward destination determined in the table checker.

2. The communication network control apparatus according to claim 1, further comprising:

20 a table rewriter that associates forward information corresponding to a base station and forward information corresponding to an adjacent base station with the MPLS label of the received packet stored in the forwarding table, according to changes in information indicating whether a radio communication terminal, to which the received packet is ultimately transmitted, exists in a diversity area of the base station and the adjacent base station.

25 3. The communication network control apparatus

according to claim 2, wherein by receiving information indicating that the radio communication terminal enters the diversity area, the apparatus recognizes that the radio communication terminal enters the diversity area.

5 4. The communication network control apparatus according to claim 2, wherein when the radio communication terminal moves out of the diversity area, the table rewriter associates either the forward information corresponding to the base station or the forward  
10 information corresponding to the adjacent base station with the MPLS label of the received packet stored in the forwarding table.

5. The communication network control apparatus according to claim 4, wherein by receiving information  
15 including information indicating that the radio communication terminal moves out of the diversity area and information indicating a base station with which the radio communication terminal is communicating, the apparatus recognizes that the radio communication  
20 terminal moves out of the diversity area, and enters an area of either the adjacent base station or the base station.

6. The communication network control apparatus according to claim 1, wherein the forwarding table is  
25 extended from a basic table of MPLS.

7. A communication network control method on an MPLS network connected with a plurality of base stations,

comprising:

preparing a forwarding table that associates an MPLS label with a plurality of pieces of forward information for forwarding a packet assigned the MPLS label to store;

5 receiving the packet assigned the MPLS label;

referring to the forwarding table;

determining a forward destination corresponding to the MPLS label of the checked packet; and

10 forwarding the received packet to the forward destination determined.

8. The communication network control apparatus according to claim 2, further comprising:

a DIV table that stores the forward information related to the base station when the radio communication terminal enters the diversity area,  
15 wherein when the radio communication terminal enters the diversity area, the table rewriter extracts the forward information related to the base station stored in the DIV table, and associates the forward information corresponding to the base station and the forward information corresponding to the adjacent base station  
20 extracted from the DIV table with the MPLS label of the received packet stored in the forwarding table to store in the forwarding table.

25 9. The communication network control apparatus according to claim 2, further comprising:

a timer that measures an expiration time of the

forward information corresponding to the base station,  
wherein upon receiving information indicating that the  
expiration time of the forward information corresponding  
to the base station has elapsed from the timer, the table  
5 rewriter deletes the forward information corresponding  
to the base station from the forwarding table.

10. The communication network control apparatus  
according to claim 9, wherein the apparatus receives the  
expiration time from the radio communication terminal.